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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/841,837

04/26/2001

Gerard Terreault

428-B01.US

5819

7590

06/23/2005

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EXAMINER

MEEK, JACOB M

ART UNIT

PAPER NUMBER

2637

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/841,837	<b>Applicant(s)</b> TERREAU ET AL.	
	<b>Examiner</b> Jacob Meek	<b>Art Unit</b> 2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 February 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 14 - 17 is/are rejected.
- 7) ☒ Claim(s) 4 - 13, 18 - 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/26/01 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. Amended abstract filed on February 3, 2005 is accepted.

### *Response to Arguments*

2. Applicant's arguments regarding drawings and claims 1, 2, and 14 filed February 3, 2005 have been fully considered but they are not persuasive.
3. With regard to applicant's argument regarding drawings. While MPEP 601.01(f) does state that applications for processes can be filed without drawings. Examiner first notes that this is not applicable in view of the fact that the applicant did file *some* drawings with application. Second, MPEP 601.01(f) also states that:

"Applications filed without drawings are initially inspected to determine whether a drawing is referred to in the specification, and if not, whether a drawing is necessary for the understanding of the invention. 35 U.S.C. 113 (first sentence)."

In view of the statistical analysis, processing and displaying steps claimed by applicant examiner holds that drawings are needed for the understanding of the processing claims, as flow charts are a typical part of any software design documentation package and are instrumental for the illustration of the operating process.

Objection to drawings is maintained.

4. With regard to applicant's argument regarding 35 USC 101 rejection of claim 1, applicant's argument has been fully considered and is persuasive. 35 USC 101 is withdrawn.

5. With regard to applicant's argument regarding the rejection of claim 1 under 35 USC 102(b) as being anticipated by Pottinger ('708).

Examiner appreciates applicant's argument, however when giving the claims their broadest possible interpretation Examiner finds that Pottinger still reads on applicant's claim. Examiner interprets Pottinger's invention as analyzing received data points as previously cited, and quantifying them. Examiner points to figures 5 – 10 as examples of Pottinger's quantification and analysis of impairments, and that referenced art must be considered as a whole. Examiner further notes that Pottinger identifies examples of impairments that can be identified (see column 4, lines 48 – 58). Examiner further notes the Pottinger states the ideal and actual values are used in the determination of display data (see figure 8 and column 9, lines 17 – 41).

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

6. With regard to applicant's argument regarding the rejection of claim 2 under 35 USC 102(b) as being anticipated by Pottinger ('708).

Examiner appreciates applicant's argument, however when giving the claims their broadest possible interpretation Examiner finds that Pottinger still reads on applicant's claim. Examiner interprets Pottinger's invention as storing calculated values of said impairments as previously cited, and quantifying them. Examiner further points out that HP-IB functionality is described further (column 3, lines 45 – 46 and column 4, lines 16 – 28 where this functionality is interpreted as equivalent), and that referenced art must be considered as a whole.

Therefore, claims 1 and 2 stand rejected.

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7. With regard to applicant's argument regarding the rejection of claim 14 under 35 USC 102(b) as being anticipated by Kletsky ('766).

Examiner appreciates applicant's argument, however when giving the claims their broadest possible interpretation Examiner finds that Kletsky still reads on applicant's claim. Examiner interprets Kletsky's invention as analyzing a plurality of operating parameters to quantify signal parameter values and provide calculated values of same (please see column 7, Analysis of Channel Response, column 10, Analysis of Error Signal, and column 12, Analysis of Receiver Loop Parameters), and that referenced art must be considered as a whole. Therefore, claim 14 stands rejected.

8. Applicant's arguments, see page 9, filed February 3, 2005, with respect to the rejection(s) of claim(s) 15 - 18 under 35 USC 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kletsky ('766).
9. Applicant's arguments, see page 9, filed February 3, 2005, with respect to the rejection(s) of claim(s) 8 - 10, 13 under 35 USC 102(b) have been fully considered and are persuasive.

### ***Drawings***

10. The drawings are objected to under 37 CFR 1.83(a) because they fail to show operation of methods as described in the specification. There are no flowcharts demonstrating the operation of the method claimed by the applicant. Also, while referred to in claim and the specification the use of a receiver, a equalizer, and a spectrum analyzer is not supported in the drawings illustrating the use of these functions / functional blocks. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the

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drawing. MPEP § 608.02(d). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1 - 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Pottinger et al (4,918,708).

With regard to Claim 1, Pottinger discloses a method for detecting and quantifying impairments of a QAM data communications system which: (a) stores a statistically significant number of a plurality of received points (see column 5, lines 9 – 50 where this is interpreted

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as equivalent); (b) analyzes components of received points of respective of groups with their respective ideal components of ideal values to quantify impairments of signal and provide calculated values (see column 5, line 51 – column 6, line 25); (c) and displays said calculated values of said impairments (see Figure 4A, 4B, 4C, 5, and 6).

With regard to claim 2, Pottinger discloses a method for the storage of calculated values of impairments allowing for unmanned monitoring of signals (see Figure 3B, 82, and column 3, lines 45 – 46 and column 4, lines 16 – 28 where this functionality is interpreted as equivalent).

With regard to claim 3, Pottinger discloses a method for the measurement of impairments from a group of compression ratio, I/Q gain imbalance ratio, I/Q phase imbalance, phase noise, signal to noise ratio, signal to interference ratio (see column 4, lines 48 – 58 where this is interpreted as inclusive of group identified).

12. Claims 14 rejected under 35 U.S.C. 102(b) as being anticipated by Kletsky et al. (5,751,766)

With regard to Claim 14, Kletsky discloses a method of detecting and quantifying parameters of a received communication signal of a QAM data communication system represented by a specific coding, signal parameters are selected from a group including real baud rate, real carrier frequency, amplitude and group delay response, and low frequency disturbance (hum), (see Column 7, lines 55 – 62) method comprising the steps of: storing a statistically significant number of a plurality of operating parameters available and extracted from a signal demodulator of a receiver of said signal (Column 7, lines 13 – 17 where this is interpreted as equivalent functionality); analyzing of operating parameters to quantify signal parameters of and provide calculated values of the same (column 7 lines 49 – 53); integrally said calculated values of signal parameters. (see Column 7, lines 55 – 62).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 15 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kletsky (US-5,751,766).

With regard to claim 15, Kletsky discloses the measurement of baud rate (see column 14, lines 14 – 25. Kletsky is silent with respect to MPEG stream. Kletsky teaches the analysis of digital broadcast systems (see column 4, lines 9 – 27) of which MPEG is a known form, and therefore would have obvious to one of ordinary skill in the art at the time of invention.

With regard to claim 16, Kletsky discloses a control word and a control word dimensional factor (see figure 8C, and column 14, lines 14 – 35 where sampling weight control and weights are interpreted as equivalent functionality.

With regard to claim 17, Kletsky discloses the signal being filtered by an equalizer (see figure 2A, 214 and column 2, lines 1 – 18 where adaptive equalizer is interpreted as equivalent functionality.

***Allowable Subject Matter***

14. Claims 4 –13, and 18 – 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



***Other Cited Prior Art***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bernard (US-5,394,185), Tajiri (US-5,946,359), Williams (US-6,151,559), Al-Araj (US-6,556,239), and Kuntz (US-6,671,334) all disclose inventions in related fields of applicant's invention. NPL references describe general concepts of system testing.

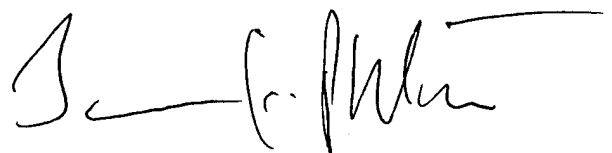
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Meek whose telephone number is (571)272-3013. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMM



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